

REMARKS

This paper is in response to the Office Action of August 31, 2007. Reconsideration is respectfully requested. This response is to a Non-Final Office Action, issued after the filing of an RCE.

Claims 1-26, 28-44 and 46-57 were rejected under 35 USC § 103(a), as being unpatentable over US Patent 6,009,210 to Kang et al., in view of US Patent 6,151,009 to Kanade et al. This rejection is respectfully traversed.

As noted in the prior response, Kang does not disclose a depth capturing capability. The teachings of Kang refer to 2 dimensional tracking using an affine model. Kang discloses tracking in the x and y direction, and depth (z direction) is not tracked (See Figures 1-3 only illustrating x and y tracking). The zoom factor mentioned in column 4 of the cited section can only be determined when all other motion is disabled. Further, Kang would not adjust a scale of the scene according to a change in a distance of the head of the user from a capture device as specified in claims 1, 14, 22, 28, 33, 39, 46 and 52, or include a camera having depth capability as specified in claims 7 and 31, since the change in relative object depth compared to the distance to the camera must be small under the affine model (see column 5 lines 58-63). For the affine model to work, it is required that the surface appear planar. In order for the face to appear planar, the distance from the user to the camera must be relatively large. The use of a depth camera would render moot the entire affine model principles for which Kang is constructed.

The Examiner acknowledged that Kang fails to teach: (a) adjusting a scale of the scene according to a change in distance of the head of the user from a capture device or (b) using a capture device having depth-capturing capability. As noted above, the reason depth capturing capability is not provided is, because use of depth would not be in line with the workings of Kang.

Nevertheless, the Examiner cited Kanade to teach the depth detection. Kanade discloses a system, generally shown in Figure 1, where input is received from two

sources. One source is a real image source and the other source is a synthetic image source. The real image source is captured using a stereo machine, which requires at least two cameras. Col. 3, line 12. The equations derived in column 3 of Kanade et al. require the output from the stereo cameras.

The Examiner indicates that the teachings of Kanade would motivate one skilled in the art to interact with a view of a scene using depth capturing to adjust a scale of the scene according to a change in distance of the head of the user. Although Kanade teaches the identification of depth, the depth is only needed to capture the user, who needs to stand in from of a backdrop. These teachings do not teach to adjust the scale of the scene. In fact, the position of the user's head is in no way tied to any adjustment in a scene. The only distance tracking done is to identify where the user is located, so that objects can be positioned in and around the scene.

As a further distinction, the "scene", as claimed is different from the area captured by Kanade. Specifically, in the claimed invention, the view-frustum is adjusted in accordance with the change in position of the head of the user and the *adjusting* of a scale of the scene takes place according to a change in a distance of the head of the user from a capture device. In Kanade, the user is "in the scene". That is, the user is captured, and then injected into the scene. What the user does in the scene in no way performs adjustments. Indeed, if the user moves his head, the scene is not adjusted.

It is respectfully submitted that the reasons provided by the office on page 4 of the office action are not logically sound to support articulated reasoning, as required for an obviousness rejection. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit, *In re KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007). The Court in KSR quoted *In re Kahn*, which stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (emphasis added).

It is respectfully submitted that the rational provided by the Office is not supported by the teachings of the art and fail to provide rational underpinnings to support

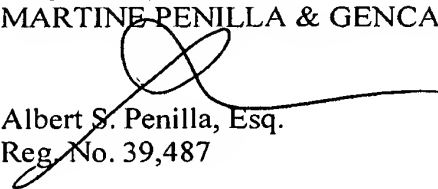
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Responsive to Office Action Dated Aug.31, 2007

the Section 103 rejection. Accordingly, the Applicants respectfully request the Office to withdraw the Section 103 rejection.

In view of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. A notice of allowance is respectfully requested.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 774-6903. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. SONYP029). A copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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